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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,540

Applicant(s)

GADDAM ET AL.

Examiner

CHRISTOPHER T. WYLLIE

Art Unit

2419

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11-16,18-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-16,18-20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED OFFICE ACTION

1. This action is responsive to the communication received November 18th, 2008. Claims 1-2, 4-9, 11-16, 18-20, and 22 have been amended. Claims 3, 10, 17, and 21 have been cancelled. This amendment has been entered and claims 1-2, 4-9, 11-16, 18-20, and 22 are again presented for examination.
2. Application 10/562,540 is a 371 of PCT/IB04/51037 (06/28/2004) and a claims benefit of Provisional Application 60/483,792 (06/30/2003).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-2, 4-9, 11-16, 18-20, and 22 are rejected under 35 U.S.C. 101 because the claimed subject matter is non-statutory.

Claims 1 and 8, claim a packet formatter within a receiver. However, the applicant discloses that the receiver and the components associated with the receiver may be implemented with software (**Specification, paragraph 0007**). Therefore, the claimed subject matter is directed towards software per se which is not-statutory.

Claim 8, claims a dual bit stream signal which is a signal per se and also non-statutory subject matter.

Claim 22, claims a packet de-randomizer within a receiver. However, the applicant discloses that the receiver and the components associated with the receiver may be implemented with software (**Specification, paragraph 0007**). Therefore, the claimed subject matter is directed towards software per se which is not-statutory.

Claims 2, 4-7, 9, 11-16, and 18-20 are rejected for the same reasons since they depend from the rejected claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 4-5, 7-8, 11-12, 14-15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strolle et al. (US 2004/0028076) in view of Limberg (US 2004/0237024).

Regarding claim 1, Strolle et al. discloses a packet formatter (**see Figure 3, Demodulator/Decoder 314**) comprising: a first processing block capable of receiving a dual bit stream signal comprising a standard stream compatible with the Advanced Television Systems Committee (ATSC) standard and a robust stream (**paragraph 0078, lines 2-8 [the enhanced signal is received by the Demodulator/Decoder 314 and separates the signal to produce a normal packet stream and a robust packet stream]**), the robust stream having associated therewith header bytes and parity bytes (**paragraph 0030, lines 3-9 [parity bytes are added to the robust data packet and to ensure backwards compatibility header bytes for the robust packet are encoded with a NULL packet header and encoded as normal data; therefore the robust data has header bytes and parity bytes]**), locations of the parity bytes being dependent upon a position of a current packet within a frame of packets in the dual bit stream signal (**paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed Solomon encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame]**) and a second processing block capable of determining the locations of the parity bytes within the current packet

according to the current packet's position within its frame (**paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed Solomon encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame]**), in response to which the first processing block removes the header bytes and parity bytes from dual bit stream signal to output a first output signal (**paragraph 0085, lines 5-12 [header bytes are stripped and then RS decoder removes the parity bytes]**). Strolle et al. does not explicitly disclose a third processing block capable of receiving said first output signal and removing therefrom duplicate bits associated with said robust stream to thereby produce a second output signal that is output from a data path output of said packet formatter. However, Limberg discloses such a feature (**paragraph 0204, lines 15-17 [the output from the Decoder 113 is the input to the 2:1 Compressor 111 which deletes all redundant alternate bits from the payload]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Limberg into the system of Strolle et al. The method of Limberg can be implemented by incorporating a 2:1 Compressor into the television receiver. The motivation for this is to remove error correction (redundant bits) performed by the Forward Error Correction (FEC) Coders.

Regarding claim 4, Strolle et al. further discloses that the second processing block is further capable of determining the locations of said header bytes in said robust stream (**paragraph 0085, lines 5-12 [header bytes are stripped and then RS decoder removes the parity bytes; therefore the locations of the header bytes are known in order to be stripped]**).

Regarding claim 5, Strolle et al. further discloses that the third processing block contains a look-up table (**paragraph 0079, lines 10-16 [a complete map of VSB symbols indicating whether each symbol is robust or normal is assembled in block 323]**).

Regarding claim 7, Strolle et al. does not disclose a signal comprising the second output signal from the data path of the packet formatter. However, Limber further discloses such a feature (**see Figure 22B, 2:1 Compressor 114 and Data De-randomizer 115 [after the 2:1 Compressor deletes the redundant bits, that data is sent to the Data De-randomizer]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Limberg into the system of Strolle et al. The method of Limberg can be implemented by enabling the 2:1 Compressor to forward the filtered signal to the De-randomizer. The motivation for this is to provide a signal to the De-randomizer without redundant robust bits in order to produce a steady stream of robust data and normal data.

Regarding claim 8, Stolle et al. discloses a television receiver capable of receiving a dual bit stream signal comprising a standard stream compatible with the

Advanced Television Systems Committee (ATSC) standard and a robust stream

(paragraph 0078, lines 2-8 [the enhanced signal is received by the

Demodulator/Decoder 314 and separates the signal to produce a normal packet stream from the digital television receiver and a robust packet stream])), the

robust stream having associated therewith header bytes and parity bytes **(paragraph 0030, lines 3-9 [parity bytes are added to the robust data packet and to ensure backwards compatibility header bytes for the robust packet are encoded with a**

NULL packet header and encoded as normal data; therefore the robust data has header bytes and parity bytes])), locations of the parity bytes being dependent upon a

position of a packet within a frame of packets in the dual bit stream signal **(paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed Solomon**

encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame])), a method of formatting packets of said dual bit stream signal comprising the steps of: receiving in a packet formatter said dual bit stream signal

(paragraph 0078, lines 2-8 [the enhances signal is received by the

Demodulator/Decoder 314 and separates the signal to produce a normal packet

stream and a robust packet stream])), determining the locations of the parity bytes within a current packet according to the current packet's position within its frame

(paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed

encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame])),

Solomon encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame]); removing the header bytes and parity bytes the dual bit signal to thereby produce a first output signal (paragraph 0085, lines 5-12 [header bytes are stripped and then RS decoder removes the parity bytes]). Strolle et al. does not explicitly disclose a third processing block capable of receiving said first output signal and removing therefrom duplicate bits associated with said robust stream to thereby produce a second output signal that is output from a data path output of said packet formatter. However, Limberg discloses such a feature **(paragraph 0204, lines 15-17 [the output from the Decoder 113 is the input to the 2:1 Compressor 111 which deletes all redundant alternate bits from the payload]).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Limberg into the system of Strolle et al. The method of Limberg can be implemented by incorporating a 2:1 Compressor into the television receiver. The motivation for this is to remove error correction (redundant bits) performed by the Forward Error Correction (FEC) Coders.

Regarding claim 11, Strolle et al. further discloses that the second processing block is further capable of determining the locations of said header bytes in said robust stream **(paragraph 0085, lines 5-12 [header bytes are stripped and then RS**

decoder removes the parity bytes; therefore the locations of the header bytes are known in order to be stripped)).

Regarding claim 12, Strolle et al. further discloses that the third processing block contains a look-up table **(paragraph 0079, lines 10-16 [a complete map of VSB symbols indicating whether each symbol is robust or normal is assembled in block 323])**.

Regarding claim 14, Strolle et al. does not disclose a signal comprising the second output signal from the data path of the packet formatter. However, Limber further discloses such a feature **(see Figure 22B, 2:1 Compressor 114 and Data De-randomizer 115 [after the 2:1 Compressor deletes the redundant bits, that data is sent to the Data De-randomizer])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Limberg into the system of Strolle et al. The method of Limberg can be implemented by enabling the 2:1 Compressor to forward the filtered signal to the De-randomizer. The motivation for this is to provide a signal to the De-randomizer without redundant robust bits in order to produce a steady stream of robust data and normal data.

Regarding claim 15, Strolle et al. discloses a television receiver **(see Figure 3, Digital Television Receiver 316)** comprising: receiver front-end circuitry **(see Figure 3, Demodulator/Decoder 314)** capable of receiving and down-converting a dual bit stream signal comprising a standard stream compatible with the Advanced Television Systems Committee (ATSC) standard and a robust stream **(paragraph 0078, lines 2-8**

[the enhanced signal is received by the Demodulator/Decoder 314 and separates the signal to produce a normal packet stream and a robust packet stream]) having associated therewith header bytes and parity-bytes (**paragraph 0030, lines 3-9 [parity bytes are added to the robust data packet and to ensure backwards compatibility header bytes for the robust packet are encoded with a NULL packet header and encoded as normal data; therefore the robust data has header bytes and parity bytes]**), locations of the parity bytes being dependent upon a position of a current packet within a frame of packets in the dual bit stream signal (**paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed Solomon encoding involves reordering of the information bytes which must be reversed at he receiver; reordering is based on the position of the packet with in the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame]**), the receiver front-end circuitry producing a baseband signal; and a packet formatter comprising: a first processing block capable of receiving said standard stream and said robust stream associated with said baseband signal (**see Figure 3A, Equalizer 326 [the equalizer receives the normal/Robust packet]**); a second processing block capable of determining the locations of the parity bytes within the current packet according to the current packet's position within its frame (**paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 [the non-standard Reed Solomon encoding involves reordering of the information bytes which must be reversed at he receiver; reordering is based on the position of the packet with in the frame;**

because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame]], in response to which the first processing block removes from the header bytes and parity bytes from dual bit stream signal to output a first output signal (**paragraph 0085, lines 5-12 [header bytes are stripped and then RS decoder removes the parity bytes]]**); a robust de-interleaver capable of receiving the second output signal and deinterleaving data in the robust stream to output a third output signal (**see Figure 3A, De-interleaver 330**); a Reed-Solomon decoder capable of receiving the third output signal and decoding data in the third output signal to output a fourth output signal (**see Figure 3A, RS Decoder 332**); and a derandomizer capable of receiving the fourth output signal and derandomizing bytes associated with said standard stream and bytes associated with said robust stream (**see Figure 3A, Derandomizer 334**). Strolle et al. does not disclose a forward error correction section capable of receiving said baseband signal from said receiver front-end circuitry wherein said forward error correction section comprises a packet formatter and a second processing block capable of receiving said first output signal and removing therefrom duplicate bits associated with said robust stream to thereby produce a second output signal that is output from a data path output of said packet formatter. However, Limberg discloses such a feature (**see Figure 22B R-S FEC Decoder 113 and paragraph 0204, lines 15-17 [the R-S FEC Decoder processes the signal; the output from the R-S FEC Decoder 113 is the input to the 2:1 Compressor 111 which deletes all redundant alternate bits from the payload]]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Limberg into the system of Strolle et al. The method of Limberg can be implemented by incorporating an R-S FEC decoder and a 2:1 Compressor into the television receiver. The motivation for this is to remove error correction (redundant bits) performed by the Forward Error Correction (FEC) Coders.

Regarding claim 18, Strolle et al. further discloses that the second processing block is further capable of determining the locations of said header bytes in said robust stream **(paragraph 0085, lines 5-12 [header bytes are stripped and then RS decoder removes the parity bytes; therefore the locations of the header bytes are known in order to be stripped])**.

Regarding claim 19, Strolle et al. further discloses that the third processing block contains a look-up table **(paragraph 0079, lines 10-16 [a complete map of VSB symbols indicating whether each symbol is robust or normal is assembled in block 323])**.

7. Claims 2, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strolle et al. (US 2004/0028076) in view of Limberg (2004/0237024) as applied to claim 1,8, and 15 above, and further in view of Hurst, Jr. (US 6,034,731).

Regarding claim 2, the references as applied above disclose all the claimed subject matter recited in claim 1, but do not disclose that the packet formatter passes

bytes associated with the standard stream to the data path output of the packet formatter after delaying the standard stream bytes by a predetermined delay time. However, Hurst, Jr. discloses such a feature **(column 4, lines 2-5 [the MPEG picture header has contains a delay number that indicates the amount of time a decoder should wait until it decodes the picture])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Hurst, Jr. into the system of the references as applied above. The method of Hurst, Jr. can be implemented by enabling the Demodulator/Decoder 314 to determine the amount of time to wait to decode the picture. The motivation for this is to synchronize the audio and video output on to the television receiver.

Regarding claim 9, the references as applied above disclose all the claimed subject matter recited in claim 8, but do not disclose that the packet formatter passes bytes associated with the standard stream to the data path output of the packet formatter after delaying the standard stream bytes by a predetermined delay time. However, Hurst, Jr. discloses such a feature **(column 4, lines 2-5 [the MPEG picture header has contains a delay number that indicates the amount of time a decoder should wait until it decodes the picture])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Hurst, Jr. into the system of the references as applied above. The method of Hurst, Jr. can be implemented by enabling the Demodulator/Decoder 314 to determine the amount of time to wait to

decode the picture. The motivation for this is to synchronize the audio and video output on to the television receiver.

Regarding claim 16, the references as applied above disclose all the claimed subject matter recited in claim 15, but do not disclose that the packet formatter passes bytes associated with the standard stream to the data path output of the packet formatter after delaying the standard stream bytes by a predetermined delay time. However, Hurst, Jr. discloses such a feature **(column 4, lines 2-5 [the MPEG picture header has contains a delay number that indicates the amount of time a decoder should wait until it decodes the picture])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Hurst, Jr. into the system of the references as applied above. The method of Hurst, Jr. can be implemented by enabling the Demodulator/Decoder 314 to determine the amount of time to wait to decode the picture. The motivation for this is to synchronize the audio and video output on to the television receiver.

8. Claims 6, 13, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Strolle et al. (US 2004/0028076) in view of Limberg (2004/0237024) as applied to claim 5, 12, and 19 above, and further in view of Firnoff (US 2001/0055342).

Regarding claim 6, the references as applied above disclose all the claimed subject matter recited in claim 5, but do not disclose that the packet formatter generates and outputs packet identification used by subsequent processing blocks. However,

Fimoff further discloses such a feature (**paragraph 0043, lines 1-7 [the Decoder 50 decodes the stream of data which includes packet identifications (PID's) and based on the PID's the RVSB receiver either discards or forwards the data to outer decoder 56; therefore the Decoder regenerates the PID from the coded data stream]]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Fimoff into the system of the references as applied above. The method of Fimoff can be implemented by enabling the packet formatter to decode the PID's from the data stream. The motivation for this is to determine which packets will be forwarded to the RVSB receiver based on the PID.

Regarding claim 13, the references as applied above disclose all the claimed subject matter recited in claim 12, but do not disclose that the packet formatter generates and outputs packet identification used by subsequent processing blocks. However, Fimoff further discloses such a feature (**paragraph 0043, lines 1-7 [the Decoder 50 decodes the stream of data which includes packet identifications (PID's) and based on the PID's the RVSB receiver either discards or forwards the data to outer decoder 56; therefore the Decoder regenerates the PID from the coded data stream]]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Fimoff into the system of the references as applied above. The method of Fimoff can be implemented by enabling

the packet formatter to decode the PID's from the data stream. The motivation for this is to determine which packets will be forwarded to the RVSB receiver based on the PID.

Regarding claim 20, the references as applied above disclose all the claimed subject matter recited in claim 19, but do not disclose that the packet formatter generates and outputs packet identification used by subsequent processing blocks. However, Fimoff further discloses such a feature (**paragraph 0043, lines 1-7 [the Decoder 50 decodes the stream of data which includes packet identifications (PID's) and based on the PID's the RVSB receiver either discards or forwards the data to outer decoder 56; therefore the Decoder regenerates the PID from the coded data stream]]**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Fimoff into the system of the references as applied above. The method of Fimoff can be implemented by enabling the packet formatter to decode the PID's from the data stream. The motivation for this is to determine which packets will be forwarded to the RVSB receiver based on the PID.

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strolle et al. (US 2004/0028076) in view of Limberg et al. (US 6,621,527).

Regarding claim 22, Strolle et al. discloses a data de-randomizer (**see Figure 3A, De-randomizer 334**) for use in a television receiver (**see Figure 3, Digital television Receiver 316**) capable of receiving a dual bit stream signal comprising a standard stream compatible with the Advanced Television Systems Committee (ATSC)

standard and a robust stream (**paragraph 0078, lines 2-8 [the enhanced signals is received by the Demodulator/Decoder 314 and separates the signal to produce a normal packet stream for the digital television receiver and a robust packet stream]**), said data de-randomizer comprising: a standard de-randomizer capable of de-randomizing bytes associated with said standard stream; and a robust de-randomizer capable of de-randomizing bytes associated with said robust stream (**paragraph 0084, lines 12-14 [the VSB De-randomizer is operates on both the normal and robust bytes]**). Strolle et al. does not disclose that the data de-randomizer further comprises a delay calculation circuit for determining a delay with respect to a field synchronization signal associated with the robust stream. However, Limberg et al. discloses such a feature (**column 6, lines 21-22 [the delay circuit provides a delay which is adjustable in response to a control signal]**).

Therefore, it would have been obvious to one of ordinary skill in art at the time the invention was made to implement the method of Limber et al. into the system of Strolle et al. The method of Limberg et al. can be implemented by integrating a delay circuit into the de-randomizer to adjust the delay of normal or robust packets by a control signal.

Response to Arguments

10. Regarding claims 1, 8 and 15, the applicant argues that the references as applied to the instant claims do not disclose or suggest a processing block capable of determining the locations of the parity bytes with in the current packet according to the

current packets position within its frame in response to which the first processing block removes the header bytes and the parity bytes from the dual bitstream to signal to output a first output signal. The examiner respectfully disagrees. Strolle et al. (US 2004/0028076) discloses that the non-standard Reed Solomon encoding involves reordering of the information bytes which must be reversed at the receiver; reordering is based on the position of the packet within the frame; because a non-standard RS encoder was used then a different byte reordering is used before stripping parity bits; therefore the parity bits are located at specific positions within the frame and header bytes are stripped and then RS decoder removes the parity bytes (**paragraph 0083, lines 2-7 and paragraph 0084, lines 9-12 and paragraph 0085, lines 5-12**).

11. Regarding claim 22, in the previous Office Action the examiner objected to claim 22 as being dependent on rejected claim 21, but would be allowable if rewritten in independent form including all the limitations of the base claim 21. However, in light of the new reference, Limberg et al. (US 6,621,527), claim 22 stands rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER T. WYLLIE whose telephone number is (571) 270-3937. The examiner can normally be reached on Monday through Friday 8:30am to 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher T. Wyllie/
Examiner, Art Unit 2419

/Salman Ahmed/
Examiner, Art Unit 2419